

## THE UNIVERSE TROUGHOUT THE POWERS OF TEN

Website reference: <http://htwins.net/scale2/>

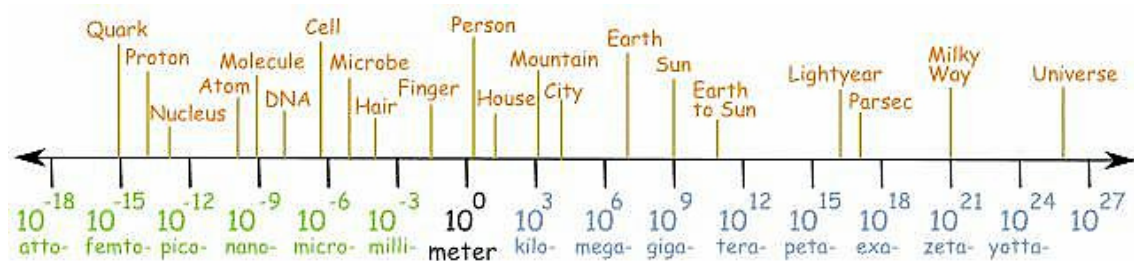
We can travel through the Universe using the powers of ten.

It is interesting to see that the different size not only shows more or less things but different ways to organize the matter.

Could be a man 10 m tall or 100 m tall? Is there a limit to the dimension for a living being?

Even the time isn't indifferent. The Universe evolves through the time. You can't find men till a determined point in the development of the Universe.

Here is the entire Universe in a scale according to the size of things. You can check that each order has its proper structure.



On the above website you can find different objects according to its size showed as a power of ten.

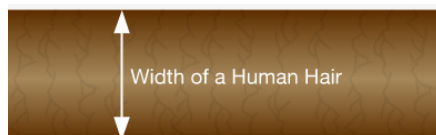
To change the scale you have a scroll bar.

You can get information from the object by clicking with the mouse on it.

### YOUR TURN

You have to choose three objects, animals or things -one of each order: one less than  $10^0$  and other greater than this power- and write the commentary you will find on the beginning website. You have to explain briefly in class the reason for your election and their features.

**Example. Human hair. 100 micrometres.  $10^{-4}$  metres**



Human hair is amazing. Straight hair is almost perfectly cylindrical. On the other hand, curly hair is flatter, which allows it to curl, like a ribbon. Did you know that you probably have 50,000 to 200,000 strands of hair in your

head? You can count!